, U.S. Application No. <u>09/973,228</u> – Filed: <u>October 9, 2001</u> Supplemental Amendment Dated: <u>November 24, 2004</u>

Reply to Office Action Dated: July 29, 2004

REMARKS/ARGUMENTS

In the Office Action dated July 29, 2004, the Examiner has objected to the disclosure and Claims 1, 2, 45, 49, 53, and 55-57 on formal grounds, and has rejected Claim 45 under 35 U.S.C. §112, first paragraph, and Claims 1-57 under 35 U.S.C. §112, second paragraph. However, the Examiner has kindly indicated that Claims 1-57 would be allowable if rewritten to overcome the rejections set forth in this Office Action.

By this paper, the Specification, Abstract, and Claims 1-9, 11-19, 20-23, 24-49, 53, and 55-57; have been amended to more particularly point out that which the Applicants regard as the invention. The specification and claims have been thoroughly reviewed and corrections of formal matters, including those suggested by the Examiner, have been made. Furthermore, new sheets of clean formal drawings have been submitted. Identified copies of the new sheets of drawings are attached hereto for Examiner's approval per the new guidelines set for Amendments. Since the Applicants have made amended changes to the full Specification, Claims, and Abstract, a diskette containing a Microsoft Word document with the amended Application as presented in this Amendment to assist with the extensive changes.

Claim 45 stands rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner contends that the terms "sol-gels" and "ceramers" are not sufficiently described. However, these terms are well understood to anyone of ordinary skill in the art. The term "sol-gel" is referred to, for example, in the article entitled "Advances in Sol-Gel Technology" reproduced at www.ceramicindustry.com /CDA/ArticleInformation/features/BNP_Features_Item/0,2710,68749,00.html. This article notes that the "sol-gel" term goes back at least to a 1939 patent. On the other hand, the term "ceramer" is defined, for example, in U.S. Patent No. 6,432,526, as being a combination of metal oxide particles with polymers. Therefore, it is respectfully submitted that one of ordinary skill in the art would certainly have understand these terms at the time of the invention, and thus this rejection is improper and should be removed.

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Claims 1-57 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim that which Applicants regard as the invention. Specifically, the Examiner has kindly enumerated those phrases that are considered to require correction. The claims have been thoroughly reviewed, and by this paper, corrections have been made to remove any ambiguities or improper phraseology, and to provide proper antecedent basis. As such, it is respectfully considered that the rejected claims all now particularly point out and distinctly recite that which Applicants regard as the invention. Accordingly, this rejection is respectfully considered to be improper, and should now be removed.

As noted above, Claims 1-57 are drawn to allowable subject matter. With the amendments provided by this paper, the rejections are respectfully considered to be overcome, and Claims 1-57 should now be allowed.

Applicants are not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. §1.99.

This Application is now believed to be in condition for favorable reconsideration and early allowance, and such actions are respectfully requested. If, upon considering the content of this paper, the Examiner concludes that there are any remaining open issues, it is respectfully requested that the Examiner contact the undersigned directly so that such issues can be resolved.

Respectfully submitted,

By:

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LPK:cvn Attachment(s)

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Amendments to the Drawings:

The attached eight (8) sheets of formal drawings are being submitted to replace the informal drawings currently on file. These drawings contain no new subject matter.

Attachment: Eight (8) Replacement Sheets (FIGS. 1a – 6c).



SUBSTITUTE SPECIFICATION

U.S.S.N. 09/973,228

FILED: OCTOBER 9, 2001

John W. May, et al.



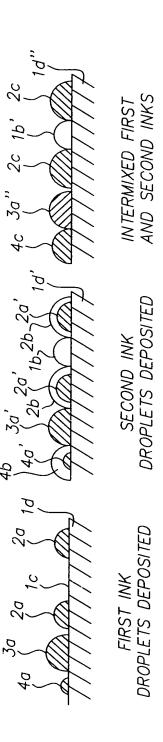
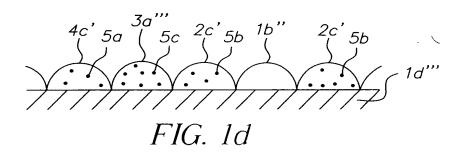


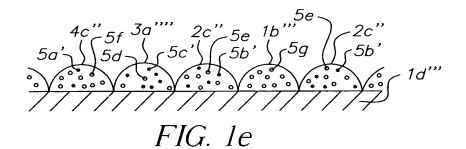
FIG. 1c

FIG. 1b

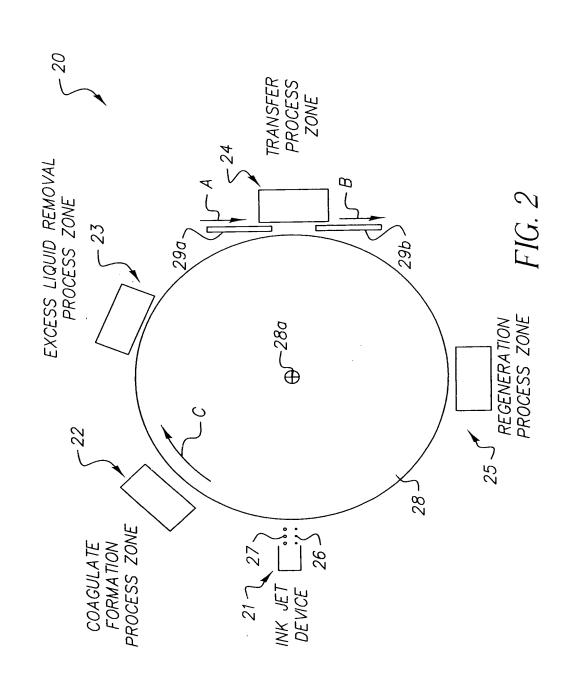
FIG. 1a



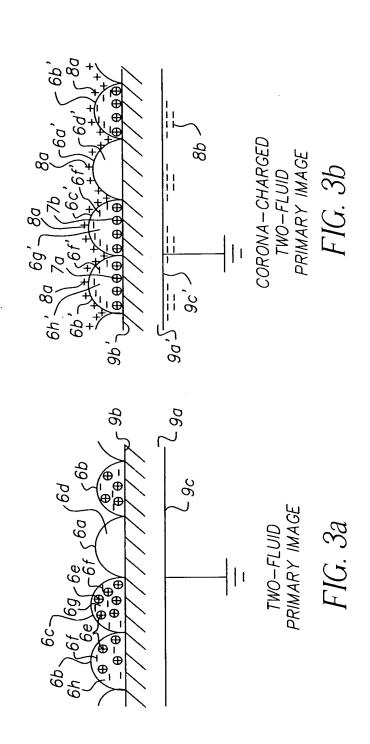




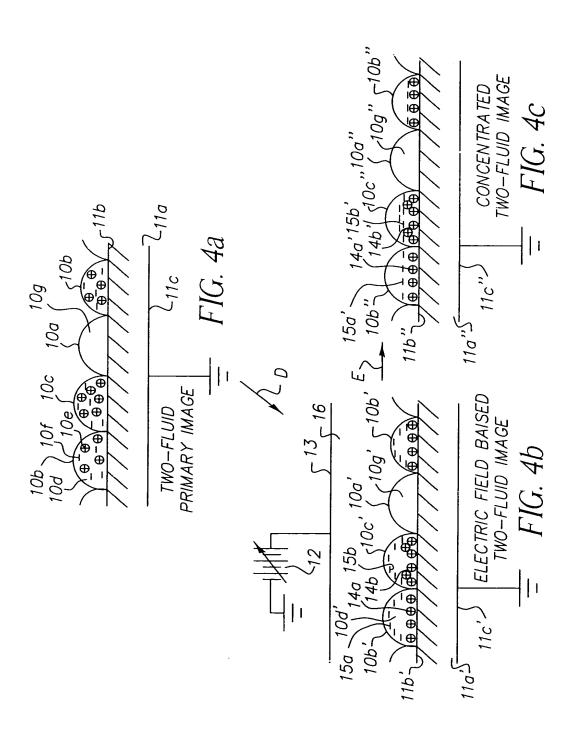














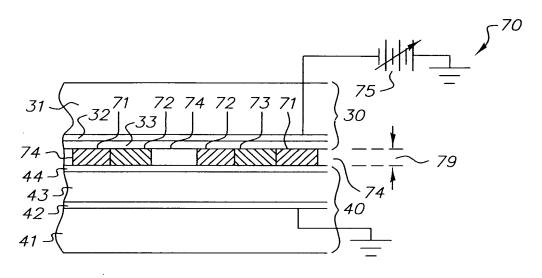


FIG. 5a

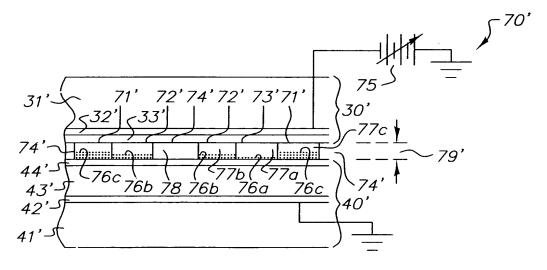


FIG. 5b



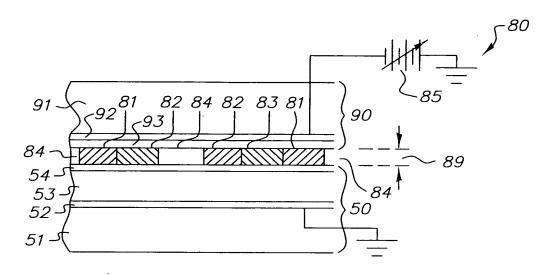


FIG. 6a

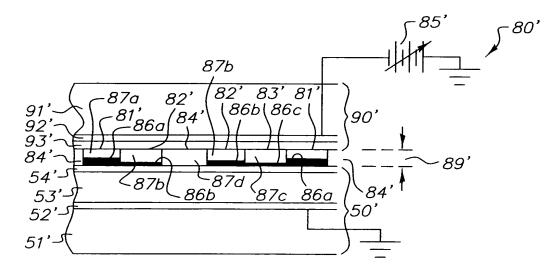


FIG. 6b



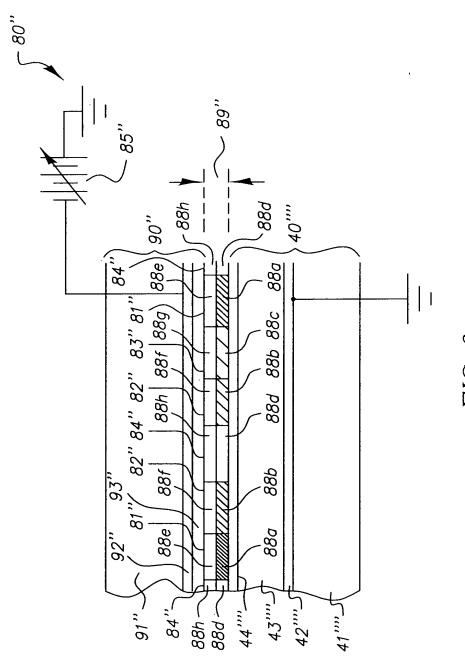


FIG. 6c